

CLAIMS

1. A device for moulding foodstuff masses, characterized in that it comprises:

- a mould (14) provided with at least one socket
5 (16) defining a pouring cavity;
- at least one insert (22) made of thermally conductive material associated, in a heat-exchange relationship, with said pouring cavity (16); and
- at least one thermal-conditioning unit (24),
10 associated to said insert made of thermally conductive material (2).

2. The device according to Claim 1, characterized in that said at least one insert (22) made of thermally conductive material defines at least part of the
15 surface of said pouring cavity (16).

3. The device according to Claim 1 or Claim 2, characterized in that said thermal-conditioning unit (24) is a refrigerating unit.

4. The device according to any one of Claims 1 to
20 3, characterized in that said thermal-conditioning unit (24) is a Peltier cell.

5. The device according to any one of the preceding claims, characterized in that said thermal-conditioning unit (24) is stably associated to said
25 mould (14).

6. The device according to Claim 5, characterized in that said thermal-conditioning unit (24) is incorporated in said mould (14).

7. The device according to any one of the
30 preceding claims, characterized in that said mould (14) has a body made of thermally insulating material.

8. The device according to any one of the preceding claims, characterized in that it comprises a plurality of sockets (16) which define respective
35 pouring cavities.

9. The device according to Claim 8, characterized in that at least one set of sockets (16) of said plurality have associated thereto inserts made of thermally conductive material (22) that are distinct
5 from one another.

10. The device according to Claim 8, characterized in that at least some of the sockets (16) of said plurality have associated thereto an insert made of thermally conductive material (22) common to a number
10 of sockets (16).

11. The device according to Claim 8, characterized in that at least one set of sockets (16) of said plurality has associated thereto thermal-conditioning units (24) that are distinct from one another.

15 12. The device according to Claims 8, characterized in that at least some sockets (16) of said plurality have associated thereto a thermal-conditioning unit (24) common to a number of sockets (16).

20 13. The device according to any one of the preceding claims, characterized in that said mould (14) has contact elements (28) which emerge on the outer surface of the mould (14) itself for the electrical supply of said at least one thermal-conditioning unit
25 (24).

14. The device according to Claim 13, characterized in that said electrical contact elements (28) have a general slider-like conformation, so as to enable supply of said at least one conditioning unit
30 (24) during movement of said mould (14) along a path of movement.

15. The device according to any one of the preceding claims, characterized in that it comprises a conveying structure (12, 13) for moving said mould (14)
35 along a path of movement.

16. The device according to Claim 13 and Claim 15, characterized in that said conveying structure comprises drawing elements (12) at least in part configured as lines for the electrical supply of said
5 at least one thermal-conditioning unit (24) through said contact elements (28).

17. The device according to any one of the preceding claims, characterized in that it comprises a control unit (34) for generating control signals of
10 said at least one thermal-conditioning unit (24) according to a cycle (100 to 126) selectively pre-determined for the thermal treatment of the material undergoing moulding.

18. The device according to any one of the preceding claims, characterized in that the mould (14)
15 carries associated thereto a processing unit (32) for controlling operation of said at least one thermal-conditioning unit (24).

19. The device according to Claim 18,
20 characterized in that said processing unit (32) is stably associated to said mould (14).

20. The device according to Claim 19, characterized in that said processing unit (32) is incorporated in said mould (14).

21. The device according to any one of Claims 18
25 to 20, characterized in that said processing unit (32) is a microprocessor, a microcontroller, or else a processing unit for smart cards.

22. The device according to Claim 17 and any one
30 of Claims 18 to 21, characterized in that it comprises a line (12) for the transfer of said control signals from said control unit (34) to said processing unit (32) associated to said at least one mould (14).

23. The device according to Claim 22,
35 characterized in that it comprises a plurality of said

moulds (14) and in that said control unit (34) is configured for transmitting encoded signals to the processing units (32) associated to the moulds (14) of said plurality, said encoding identifying selectively
5 the mould (14) of said plurality to which a given control signal is sent.

24. The device according to Claim 22 and either Claim 15 or Claim 16, characterized in that said line (12) coincides, at least in part, with said conveying
10 structure.